

What is claimed is:

- 1 1. A dual tuning fork vibratory gyro-sensor comprising:
 - 2 two arms each includes surfaces thereon and ends;
 - 3 drive electrodes formed on said surfaces of said arms;
 - 4 a first and a second tuning-form support section supporting said ends of said arms;
 - 5 a first and a second detection section connected to said first and said second tuning fork
 - 6 support sections respectively;
 - 7 a first and a second detection electrode formed on said first and said second detection
 - 8 sections respectively; and
 - 9 a first and a second support securing section supporting an end of said first and second
 - 10 detection sections;
 - 11 wherein said arms and said drive electrodes and said first and said second tuning fork
 - 12 support sections and said first and said second detection sections and said first and said second
 - 13 detection electrodes and said first and said second support securing sections are formed integrally
 - 14 and detect rotational angular velocity;
 - 15 when said dual tuning fork gyro-sensor rotates, a Coriolis force acting on said arms causes
 - 16 in-plane asymmetrical flexural secondary mode vibrations to be generated at said arms, said
 - 17 in-plane asymmetrical flexural secondary mode vibrations being transferred to said first and said
 - 18 second detection sections by way of said first and said second dual tuning fork support sections; and
 - 19 a detection signal for a rotational angular velocity is output from said first and second
 - 20 detection electrodes.

1 2. A dual tuning fork vibratory gyro-sensor as described in claim 1 wherein:

2 a crystal is used as a base material for said dual tuning fork vibratory gyro-sensor, said

3 crystal being cut so that a normal direction of a main plane is a Z axis of a crystal axis; and

4 said first and second detections sections are formed with a rectangular shape.